The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte VENKATARAM KRISHNAN

Appeal No. 2004-2233
Application No. 10/100,331

ON BRIEF

Before WARREN, WALTZ, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2004) from the examiner's final rejection of claims 1, 3, 4, 7, 8, 10, 11, 14, and 25 through 34 (final Office action mailed Oct. 16, 2003) in the above-identified application. Claims 15 through 24, the only other pending claims, stand withdrawn from further consideration pursuant to 37 CFR § 1.142(b) (2003)(effective Dec. 22, 1959). (Examiner's answer mailed Apr. 30, 2004, page 2.)

The subject matter on appeal relates to a cationically-charged water-insoluble polymer latex. Further details of this appealed subject matter are recited in representative claim 1 reproduced below:

1. A cationically-charged water-insoluble polymer latex formed from components consisting essentially of:

an ethylenically unsaturated cationic monomer;

at least one additional noncationic ethylenically unsaturated monomer selected from the group consisting of vinyl aromatic monomers, olefins, aliphatic conjugated diene monomers, non-aromatic unsaturated mono- or dicarboxylic ester monomers, monomers based on the half ester of an unsaturated dicarboxylic acid, unsaturated mono- or dicarboxylic acid monomers, nitrogen-containing monomers, vinyl ester monomers, and monomers containing ethylene unsaturation;

a component which is incorporated into said cationic polymer latex to provide steric stabilization to said cationic polymer latex, said component selected from the group consisting of (a) $CH_2=C(R)COO(CH_2CHR'O)_nR''$, where R=H, C_1-C_4 alkyl; and R′=H, C_1-C_4 alkyl, and R″=H, C_1-C_4 alkyl, and n=1-30; (b) $CH_2C(R)COO(CH_2CH_2O)_n(CH_2CHR'O)_mR''$, where R=H, C_1-C_4 alkyl, and R′=H, C_1-C_4 alkyl, and R″=H, C_1-C_4 alkyl, n and m each may range from 1-15; and (c) $CH_2=C(R)COO(CH_2CHR'O)_n(CH_2CH_2O)_mR''$, where R=H, C_1-C_4 alkyl, and R′=H, C_1-C_4 alkyl and R″=H, C_1-C_4 alkyl, n and m=1-15, and (d) mixtures of (a) and (b); and

optionally up to 1.0 weight percent of a nonionic surfactant;

wherein said latex is devoid of cationic and anionic surfactants.

The examiner relies on the following prior art references as evidence of unpatentability:

Masuda et al. (Masuda)	4,740,546	Apr. 26, 1988
Michels et al. (Michels)	5,247,008	Sep. 21, 1993

Claims 1, 3, 4, 7, 8, 10, 11, 14, and 25 through 34 on appeal stand rejected under 35 U.S.C. § 102(b) as anticipated by

either Masuda or Michels. (Answer at 4-7.)[1]

We reverse the rejection based on Masuda but affirm the rejection based on Michels for the reasons well stated in the answer.[2]

We consider first the rejection based on Masuda. Masuda teaches an aqueous dispersion of a vinyl copolymer resin solution in water, the vinyl copolymer resin solution being obtained by polymerizing 1-15 parts by weight of a polyoxyethylene-containing hydrophilic monomer in which the polyoxyethylene moiety has an average molecular weight of 2,000 to 10,000, 85-99 parts by weight of at least one specific polymerization vinyl monomer, and 0-5 parts by weight of á,â-unsaturated carboxylic acids, salts thereof, or anhydrides thereof in an organic solvent. (Column 2, lines 1-12.) According to Masuda, triethylammonium methacrylate may be used as a comonomer. (Column 3, lines 35-42; Example 13.) Masuda further teaches that the structure of the polyoxyethylene

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[1] The final rejections under 35 U.S.C. § 102(b) of the appealed claims over U.S. Patent Nos. 4,735,991 issued to Guioth et al. on Apr. 5, 1988, 4,943,612 issued to Morita et al. on Jul. 24, 1990, and 5,312,863 issued to Van Rheenen et al. on May 17, 1994 have been withdrawn. (Answer at 3.)

[2] The appellant submits that "the [appealed] claims stand or fall together." (Appeal brief filed Mar. 15, 2004, p. 2.) We therefore select claim 1 as representative and confine our discussion to this representative claim. See 37 CFR § 1.192(c)(7)(2003)(effective Apr. 21, 1995).

monomer may be as follows:

$$H\text{-}CR_1{=}CR_2COOR_3\text{-}O\text{-}(CH_2CH_2O)_n\text{-}R_4$$

wherein each of R_1 and R_2 represents a hydrogen atom, an alkyl group having 1-4 carbon atoms, or a phenyl group, R_3 represents an alkylene group having 2 or 3 carbon atoms, R_4 represents a hydrogen atom or an alkyl group having 1-4 carbon atoms, and n represents the number of repeating oxyethylene units. (Column 2, lines 22-38.)

The appellant argues that Masuda does not disclose the polyoxyethylene-containing monomer recited in the appealed claims. (Appeal brief at 5; reply brief filed Jun. 30, 2004, pages 1-2.) We agree.

As we discussed above, Masuda teaches that the polyoxyethylene moiety of the polyoxyethylene-containing monomer has an average molecular weight of 2,000 to 10,000. By contrast, "n" is at most 30 in the here recited polyoxyethylene monomer (a) and each of "n" and "m" is at most 15 in the here recited polyoxyethylene monomer (b) and (c).

Accordingly, with respect to Masuda, it cannot be said that the examiner has adequately established a prima facie case of anticipation under 35 U.S.C. § 102.

The rejection based on Michels stands on different footing.

Michels describes an aqueous dispersion (i.e., a latex) obtained by polymerizing 62 parts by weight of CH_2=$CHCOOCH_2CH_2C_8F_{17}$, 15 parts by weight of n-butyl acrylate, 20 parts by weight of CH_2=$CCH_3COO(CH_2CH_2O)_8H$, and 3 parts by weight of dimethylaminoethyl methacrylate in 285 parts by weight of acetone; mixing with a solution of 3.9 parts of acetic acid in 296 parts by weight of deionized water; and then removing the acetone by distillation at 60°C and 200-300 mbar. (Examples 1 and 2.) The fluorine-containing monomer described in Michels is encompassed by either the "non-aromatic unsaturated mono- or dicarboxylic ester monomers" or "monomers containing ethylene unsaturation" recited in appealed claim 1. (Specification, page 3, line 17 to page 4, line 2.) Additionally, the n-butyl acrylate and the dimethylaminoethyl methacrylate described in Michels are identified in the present specification as suitable noncationic ethylenically unsaturated monomer and cationic quaternary amine monomer, respectively. (Id. at page 3, line 24 and page 4, lines 24-25.)

Thus, we share the examiner's view that Michels describes each and every limitation of the invention recited in appealed claim 1. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

The appellant argues that Michels does not teach the formation of the aqueous polymer dispersion by an emulsion polymerization process. (Appeal brief at 6.) This argument is utterly without merit. Nothing in the express language of the claims or in the written description of the specification limits the method by which the latex is formed. In re Self, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982)("Many of appellant's arguments fail from the outset because, as the solicitor has pointed out, they are not based on limitations appearing in the claims.").

Even if such limitation exists, which it does not, it is well settled that the patentability of a product rests on the actual product, not on the method by which it is produced, and that when a claimed product reasonably appears to be substantially the same as a product disclosed in the prior art, the burden of proof is on the applicant to prove otherwise. In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); In re Thorpe, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985).

The appellant urges that "[t]here is no disclosure [in Michels] that the organic solvents are completely removed." (Appeal brief at 6; reply brief at 2.) This argument is also

unavailing. As noted above, Michels teaches a distillation step to remove the organic solvent. (Column 5, lines 24-25.) Also, nothing in the written description of the present specification indicates that residual organic solvents, if any are indeed present in the prior art aqueous dispersion, are excluded by appealed claim 1. Quite contrarily, the specification states that various "other additives" and "other components" may be present in the claimed latex. (Specification, page 6, line 30 to page 7, line 5.)

To the extent that appealed claim 1 recites "consisting essentially of," the appellant has not adequately established that the presence of residual organic solvents would materially affect the basic and novel characteristics of the invention recited in appealed claim 1. PPG Industries Inc. v. Guardian Industries Corp., 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998); In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976).

The appellant further contends that "Michels proposes fluorinated dispersions which are clearly different from the cationic lattices of the invention." (Appeal brief at 6.) This position is also without any merit. The present specification describes the use of fluorine-containing monomers.

(Specification, page 4, lines 1-2.)

For these reasons, we hold that the appellant has not adequately rebutted the examiner's prima facie case of anticipation. Accordingly, we uphold the examiner's rejection on this ground.

In summary, we reverse the examiner's rejection under 35 U.S.C. § 102(b) of appealed claims 1, 3, 4, 7, 8, 10, 11, 14, and 25 through 34 as anticipated by Masuda. We affirm, however, the examiner's rejection under 35 U.S.C. § 102(b) of appealed claims 1, 3, 4, 7, 8, 10, 11, 14, and 25 through 34 as anticipated by Michels.

The decision of the examiner to reject all of the appealed claims is therefore affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Charles F. Warren)
Administrative Patent Judge)
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	) BOARD OF PATENT
Thomas A. Waltz	)
Administrative Patent Judge	) APPEALS AND
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	) INTERFERENCES
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